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# Marketing Analytics

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**Office Hours:** Wednesday 11:00-12:00, Jaume I, 20.149

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## Course Description

The industrial Internet is increasingly allowing firms to measure consumer data (usage data, perceptions data and preference data) as part of regular business, without a study. Large amounts of data are collected, stored and organized. Such "Big Data" can be today retrieved easily, visualized in a simple manner, and become available to marketing strategists. In this course, you will learn how to develop actionable marketing strategies based on data.

## Objectives

At the end of the course, students should:

- ✓ Know how to use market measurement data to generate actionable marketing strategies: How to segment customers? Who to target? How to map product design and market structure? How and where to position your product?
- ✓ Understand the core concepts of the marketing analytics tools. Understand why and how methods such as logit analysis, cluster analysis, and conjoint analysis are useful in market segmentation, in targeting, and in mapping market structure and product design.
- ✓ Gain a deep understanding of limitations of such tools, and appropriate selection of the methods to address particular marketing strategy requirements.

## Methodology

In the classroom, the course will combine lectures and expository sessions on "what" Marketing Analytics techniques are and "when" to apply them with practical hands on SPSS sessions on "how" to perform the analysis and interpret the output to make decisions. The practical sessions in this course will have a heavy "hands-on" flavor, where we will analyze dataset using the SPSS statistical analysis program. (No previous knowledge of SPSS is necessary.)

The course also involves a substantial amount of autonomous work outside the classroom combining readings that will help you to gain a deeper understanding of the material covered in the class with homework assignments that will allow you to gain confidence in and become familiar with the practical issues of implementing the analytics techniques.

## Evaluation criteria

Class Attendance and Active Participation	20%	of your total grade
Individual Homework Assignment 1	20%	of your total grade
Individual Homework Assignment 2	20%	of your total grade
Individual Homework Assignment 3	20%	of your total grade
Individual Homework Assignment 4	20%	of your total grade

### Class Attendance and Active Participation

Attendance in every session is expected and recorded by means of an attendance sheet. It is your responsibility to comply with this measure. Class attendance is compulsory and will be considered in your final grades; punctuality is a must. Note that unexcused absences reduce your score on the "attendance and participation" element of your final grade. In fact, two or more unexcused absences will result in an automatic score of zero and, in all likelihood, a fail mark for the course as a whole.

Plagiarism is to use another's work, fully or partially, and to present it as one's own without acknowledging the sources in the correct way. All homework assignments handed in by a student must be original work completed by the student. By enrolling at any UPF Barcelona GSM Master of Science and signing the "Honor Code," students acknowledge that they understand the schools' policy on plagiarism and certify that all course assignments will be their own work, except where indicated by correct referencing. Failing to do so may result in automatic expulsion from the program.

## Reading Materials/ Bibliography/Resources

No textbook is required for this course. All the required material will be provided. Any readings, notes, handouts, dataset or additional course material will be available through the course website.

However, if you are interested in buying a general reference book, I recommend the following title: **Marketing Models: Multivariate Statistics and Data Analytics**, by Dawn Iacobucci (2014).

**COURSE CONTENT**

Topic	Class	Subject
Understanding the Market: Insights and Inferences from the Data	1.	Welcome and Introduction to the Course - Marketing in the Age of Data
	2.	Data Visualization & Data Aggregation Case: MBA Starting Salary
Linking Causes & Effects Between Resources Allocations and Desired Market Outcomes	3.	Regression Analytics Case: Medicorp
	4.	Regression Analytics ( <i>continued</i> )
	5.	Exercise: Cardio Machines
	6.	Dealing with Synergies and Non-linearities
	7.	Leveraging the Power of Regression Analytics: Transformation Techniques
		<b>Homework 1</b>
8.	Reviewing Homework 1	
Customer Selection Strategy	9.	Logistic Analytics
	10.	Exercise: Ski Resort
	11.	Logistic Analytics: Assessing Validity
		<b>Homework 2</b>
12.	Reviewing Homework 2	
Customer Segmentation & Profiling	13.	Cluster Analytics - Fundamental Concepts
	14.	Clustering Analysis - Implementation and practical issues
	15.	Segmenting Consumers on the Basis of Attitudes to Shopping
		<b>Homework 3</b>
16.	Reviewing Homework 3	
Consumer Choice & Decision Analytics	17.	Conjoint Analytics and Consumer Preferences Modelling
	18.	Market Share Simulation using Conjoint Analysis
		<b>Homework 4</b>
	19.	Reviewing Homework 4, Course Wrap up, Q&A
20.	Closing the Course, Wrap up, Q&A	